



COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SCATTERED PILOT PATTERN AND CHANNEL ESTIMATION METHOD FOR MIMO-OFDM SYSTEM

		is attached hereto.	
	\boxtimes	was filed on January 8, 2002	
		as U.S. Application Serial No. 10/038,883	
		was filed on	
		as PCT International Application No.	
and (if appli	cable) wa	as amended on	•

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information known to me which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §§1.56(a) and (b), which state:

- "(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) prior art cited in search reports of a foreign patent office in a counterpart application,

JA7 . .

- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
 - (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability."

I hereby claim foreign priority benefits under 35 United States Code, §119 and/or §365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate filed by me or my assignee disclosing the subject matter claimed in this application and having a filing date (1) before that of the application on which priority is claimed, or (2) if no priority claimed, before the filing of this application:

PRIOR FOREIGN APPLICATION(S)

			Date First		
Number	Country	Filing Date (Day/Month/Year)	Laid-open or Published	Date Patented or Granted	Priority
					Claimed?

I hereby claim the benefit under 35 United States Code, §119(e) of any United States provisional application(s) listed below:

Application Number

Filing Date

60/329,509

October 17, 2001

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

PRIOR U.S. OR PCT APPLICATION(S)

Application No.

Filing Date (day/month/year)

<u>Status</u> (pending, abandoned, granted)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following patent agents with full power of substitution, association and revocation to prosecute this application and/or international application and to transact all business in the Patent and Trademark Office connected therewith:

JAMES D. KOKONIS (Reg. No. 21178)
ALAN R. CAMPBELL (Reg. No. 26129)
ROBERT D. GOULD (Reg. No. 27523)
THOMAS R. KELLY (Reg. No. 29244)
MICHAEL E. WHEELER (Reg. No. 29246)
R. ALLAN BRETT (Reg. No. 40476)
PHILIP D. LAPIN (Reg. No. 44443)
HANS KOENIG (Reg. No. 46474)
CHRISTINE N. GENGE (Reg. No. 45405)
DENNIS S.K. LEUNG (Reg. No. 47325)
DONALD F. PHENIX (Reg. No. 32528)
DAVID E. SCHWARTZ (Reg. No. 48,211)

PLEASE SEND CORRESPONDENCE TO:

HUGH O'GORMAN (Reg. No. 26140)
A DAVID MORROW (Reg. No. 28816)
JAMES McGRAW (Reg. No. 28168)
JOHN BOCHNOVIC (Reg. No. 29229)
JOY D. MORROW (Reg. No. 30911)
TOKUO HIRAMA (Reg. No. 32551)
KOHJI SUZUKI (Reg. No. 44467)
R. JOHN HALEY (Reg. No. 29502)
THUY HUONG NGUYEN (Reg. No. 47336)
KEVIN K. GRAHAM (Reg. No. P-47365)
MATTHEW M. ROY (Reg. No. 48,074)
ELLIOTT S. SIMCOE (Reg. No. P-50,010

SMART & BIGGAR P.O. Box 2999, Station D 900-55 Metcalfe Street Ottawa, Ontario Canada K1P 5Y6 Tel: (613) 232-2486

Fax: (613) 232-8440

07380

PATENT TRADEMARK OFFICE

1) INVENTOR'S SIGNATURE:	- franglei Ma I	Date: March 7 2002
Inventor's Name: Jianglei	•	Ma
(First)	(Middle)	(Family Name)
		,
Country of Citizenship: CANA	ADA	
Residence: Kanata, Ontario, Ca	ınada	
(City, Province	ce, Country)	
Post Office Address: 3 Bon E	cho Cres., Kanata, Ontario, Canada K	2M 2W5
2) INVENTOR'S SIGNATURE:	fia ming	Date: March 7, 2002
Inventor's Name: Ming		Jia
(First)	(Middle)	(Family Name)
Country of Citizenship: CANA		
Residence: Ottawa, Ontario, Ca		
(City, Province)	ce, Country)	
Post Office Address: 609 - 32	O Croydon Ave., Ottawa, Ontario, Car	nada K2B 5P3
3) INVENTOR'S SIGNATURE:	Thrend !	Date: March 7, 2002
Inventor's Name: Peiying	_	Zhu '
(First)	(Middle)	(Family Name)
Country of Citizenship: CANA	,	
Residence: Kanata, Ontario, Ca		
(City, Province	ce, Country)	
Post Office Address: 16 Pebb	le Creek Cres., Kanata, Ontario, Canad	da K2M 2L4

4) INVENTO	R'S SIGNATURE:	A STATE OF THE STA	Date:	March.7. 2002
Inventor's Nan	ne: Wen			Tong
	(First)	(Middle)		(Family Name)
Country of Citi	izenship: <u>CANA</u>	DA		
Residence:	Ottawa, Ontario, Car	nada		
-	(City, Province	e, Country)		
Doct Office Ad	drong: 12 White	stone Drive Ottovya Ontario C	anada K2C .	1 A 7